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SHIRT SLEEVE MAINTENANCE CLINIC

SPONSORED BY

THE PUBLIC HOUSING ADMINISTRATION

AND

NATIONAL ASSOCIATION OF
HOUSING AND REDEVELOPMENT OFFICIALS

UNDER THE AUSPICES OF

HOUSING AUTHORITY OF THE CITY OF NEWARK

TUESDAY AND WEDNESDAY
MAY 26, 27, 1959
JUNE 2, 3, 1959

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F O R E W O R D

The Housing Authority of the City of Newark was gratified to conduct the Shirt Sleeve Maintenance Clinics sponsored by the Public Housing Administration and the National Association of Housing and Redevelopment Officials.

The purpose of these clinics was to encourage critical self-analysis by the participating Authorities and to provide a medium for mutual sharing of experiences in maintenance problems and techniques.

Certain project operating costs, such as taxes and utilities are fixed. We have no direct control over these. Only a few avenues are open where we can reduce expenses. The principal one is maintenance operations. Expenses can be reduced in several or all of the following ways:

1. The elimination of waste and inefficiency in our operations. This can be accomplished through proper training and thorough analyses of our operations and then putting into effect recommendations for economical operations based upon these analyses.
2. The innovation of new labor saving techniques.
3. Better design to guarantee economy.
4. Tenant maintenance.

Reduction of expenditures becomes increasingly important when we realize that because we are operating a low-rent program, our income remains fairly constant. On the other hand, expenses have been rising and the frequency and extent of repairs and replacements in our older projects is increasing. In brief, the expense curve is rising sharply while the income curve remains fairly horizontal and constant.

It is our responsibility to change the direction of these curves so that they will run parallel and as horizontal as possible.

LOUIS DANZIG
Executive Director

PUBLIC HOUSING ADMINISTRATION

New York Regional Office
346 Broadway
New York 13, New York

May 7, 1959

TO PARTICIPATING AUTHORITIES:

The Public Housing Administration and the National Association of Housing and Redevelopment Officials are jointly sponsoring a Shirt Sleeve Maintenance Clinic at BRADLEY COURT, 46 N. Munn Avenue, Newark, New Jersey, on May 26 and 27, 1959, and June 2 and 3, 1959, under the auspices of the Newark Housing Authority. You will note from the agenda enclosed that the first day of the conference will be devoted entirely to boiler plant operations, while the second day will be devoted to grounds, structures and safety. The program has been so arranged that personnel from your Authority engaged in heating plant operations and the other maintenance categories can attend these meetings the first or second day or both days.

Representatives of 30 Housing Authorities in Northern New Jersey and Westchester County, New York, will be invited to participate in the conferences and demonstrations. The aim is to foster an interest in the reduction of maintenance costs through greater efficiency in operations. In order that maximum exploitation of the subjects to be covered may be gained, it is requested that the personnel selected to attend be limited to two in number for each day of the conference. Furthermore, only those persons engaged in the specific maintenance function for each of the separate days should be authorized by your Authority to attend.

Luncheon will be served in the Auditorium of BRADLEY COURT at a cost of approximately \$1.50 per person. Enclosed is a copy of a form letter which we request that you complete and return to this office not later than May 20, in order that arrangements may be made for the luncheon. Travel expenses incurred by personnel attending the clinic are chargeable to Account 4190.

As heretofore, we repeat that these conferences offer an excellent medium for staff training through exchange of operational experiences. You are urged to take maximum advantage of the opportunity for your personnel to attend.

Sincerely yours,

HERMAN D. HILLMAN
Regional Director

AUTHORITIES PARTICIPATING
in
SHIRT SLEEVE MAINTENANCE CLINIC

FIRST SESSION - May 26, 27

Hackensack, New Jersey
Hoboken, New Jersey
Lodi, New Jersey
Newark, New Jersey
North Bergen, New Jersey
Passaic, New Jersey
Paterson, New Jersey
Trenton, New Jersey
Union City, New Jersey
West New York, New Jersey
Tuckahoe, New York
Yonkers, New York

SECOND SESSION - June 2, 3

Bayonne, New Jersey
Elizabeth, New Jersey
Garfield, New Jersey
Guttenberg, New Jersey
Harrison, New Jersey
Irvington, New Jersey
Jersey City, New Jersey
Morristown, New Jersey
Newark, New Jersey
New Brunswick, New Jersey
Orange, New Jersey
Woodbridge, New Jersey
Freeport, New York

Agenda For
SHIRT SLEEVE MAINTENANCE CLINIC
held at
Joseph P. Bradley Court
46 North Munn Avenue
Newark, New Jersey

REGIONAL CHAIRMAN: John J. Tracy, Public Housing Administration

GENERAL CHAIRMAN: Morton A. Jamieson, Newark Housing Authority

FIRST DAY

8:30 a.m. - 9:00 a.m. - Registration

9:00 a.m. - 9:15 a.m. - General Session

Invocation - Rev. Thomas J. Finnegan, Chairman, Newark Housing Authority

Addresses of Welcome - Louis Danzig, Executive Director
Newark Housing Authority

Arthur Flanigan, Public Housing Administration

9:15 a.m. - 9:30 a.m. - The Heating Plant

DISCUSSION MODERATOR: George L. Barta, Public Housing Administration

1. Fundamentals of Heating Plant Operation
Film - Courtesy of New York City Housing Authority

9:30 a.m. - 10:00 a.m.

2. Oil Burner Assembly
Michael Hogan, Combustion Installations Corporation

10:00 a.m. - 12:00 noon

3. The Oil Burner - Maintenance and Operation
Stephen Galaida, Newark Housing Authority
Edwin Dunlap, Newark Housing Authority

12:00 noon - 1:00 p.m. - LUNCH

1:00 p.m. - 1:30 p.m.

4. Boiler Water Treatment
Louis Hamant, Aquatrol Laboratories, Inc.

1:30 p.m. - 2:00 p.m.

5. Demonstration of Boiler Cleaning
Richard R. Owilliam, Formula Floor Products, Inc.

Agenda - First Day (cont.)

2:00 p.m. - 4:00 p.m.

6. The Steam Boiler - Operation and Maintenance
7. The Heating System

Stephen Galaida, Newark Housing Authority
Robert Milan, Newark Housing Authority

SECOND DAY

DISCUSSION MODERATOR: Herbert O. Fagher, Public Housing Administration

9:00 a.m. - 10:00 a.m.

1. Safety and Fire Prevention
Henry L. Schoettly, Battalion Chief, Newark Fire Department

10:15 a.m. - 11:15 a.m.

2. Mechanical Equipment - Demonstration
Steuart M. Pond, Wayne Manufacturing Company

11:15 a.m. - 12:00 noon

3. Locks - their repair, maintenance, installation, and replacement.
James Shanshan, Weiser Lock Co.
Arthur Gaviola, Weiser Lock Co.

12:00 noon - 1:00 p.m. - LUNCH

1:00 p.m. - 1:30 p.m.

4. Annual Inspection of Apartments
Morton A. Jamieson, Newark Housing Authority

1:30 p.m. - 2:00 p.m.

5. Walks and Pavements, Benches, Yard Equipment and Appurtenances
Herbert O. Fagher, Public Housing Administration

2:00 p.m. - 3:00 p.m.

6. Maintenance Techniques - Floors
B. Coven, Formula Floor Products, Inc.

3:00 p.m. - 4:00 p.m.

7. Preventive Maintenance of Roofs, Appurtenances, Flashings, and Parapet Walls
Robert A. Ronayne, John N. Thorp Co., Inc.

S U M M A R Y

Two Shirt Sleeve Maintenance Clinics sponsored jointly by the Public Housing Administration and the National Association of Housing and Redevelopment Officials were held under the auspices of the Housing Authority of the City of Newark. These Clinics, the first to be held in Newark, were held at Joseph P. Bradley Court, N.J. 2-14, 46 North Munn Avenue.

To provide and insure maximum individual participation, the program was divided into two sessions, the first on May 26 and 27, 1959; and the second on June 2 and 3, 1959.

At the first session there were thirty-five representatives from twelve different Authorities located in the north New Jersey and New York areas. At the second session there were thirty-nine representatives from thirteen other Authorities, from the same geographical area.

The purpose of these Clinics was to discuss and demonstrate the ways and means by which maintenance costs can be reduced through greater efficiency in operations; to permit the participants to discuss the many problems which confront the maintenance staff in its day-to day operations; to exchange individual experiences and methods of correction; and, to permit the participants to perform corrective maintenance at the Clinic itself.

FIRST DAY

The session was opened by Mr. Morton A. Jamieson, Supervisor of Maintenance, Housing Authority of the City of Newark, who was the General Chairman of the program. He introduced Mr. Louis Danzig, Executive Director of the Housing Authority of the City of Newark, who greeted the participants and added that he was greatly pleased that Newark was selected as the site for this clinic. He expressed the hope that from the discussions, demonstrations, and conclusions reached at these sessions, there would evolve a solution to the problem of maintaining public housing projects at an acceptable standard and at a cost which would insure the solvency of local housing authorities.

Mr. Arthur Flanigan, Management Coordinator, representing the New York Regional Office, welcomed everyone on behalf of the Public Housing Administration. He stated that the coordinated and combined undertaking of the National Association of Housing and Redevelopment Officials, Public Housing Administration, and the Newark Housing Authority should result in a very fruitful conference, and expressed the hope that everyone attending would profit by it. He thanked the General Chairman of the program and his assistants for the effort put into the development of the program.

At this point the General Chairman, Mr. Jamieson, turned the program over to Mr. George L. Barta, Maintenance Engineer, Public Housing Administration, who was the Discussion Moderator for the first day's session.

Since boiler room operation presents some of the biggest problems in maintenance, and represents probably the most expensive operating costs, the entire first day was devoted to heating plant operations.

(1) During the morning session, through the courtesy of the New York City Housing Authority, a fifteen minute film was shown which demonstrated the operation of a horizontal rotary type fuel oil burner designed to burn No. 6 fuel oil. This burner system is similar in design to those in use at most local authorities.

The film stressed the fundamentals of heating operations. It showed how the oil is taken from the tanks through a suction line by means of a fuel oil transfer pump. This results in the formation of combustion gases, which vary in temperature within the combustion chamber from 2400 to 2800 degrees Fahrenheit. The heat from these combustion gases is transferred through the metal surfaces of the boiler into and through the water, resulting in the generation of steam. The steam is then distributed through a series of underground pipes through all the buildings to provide heat and hot water services.

The film showed how to start a burner, the positions of the switches, etc. It pointed out the many instruments, such as the fuel oil indicator gauge, which shows the amount of oil present; the temperature gauge, which indicates the temperature of the fuel oil; and the vacuum gauge, which shows the operation of the fuel oil service pump.

The film also showed that in order to maintain a constant minimum temperature of 70° in the apartments, a heating control system depends upon a master control panel which operates in conjunction with an outside weather compensator or selector. This control panel is directly responsible for the operation of the motorized zone control valve which supplies steam to the radiators. Through the balancer and differential control a desired temperature is maintained in the buildings. All these instruments work together for the efficient distribution of steam through the apartments so all tenants will reside in a healthful environment.

(2) Mr. Michael Hogan of Combustion Installations Corporation, distributors of the Todd oil burner, gathered the participants around a display model of an oil burner and discussed its assembly, component parts and the principal steps in its operation. The burner was disassembled and reassembled during the instruction period. Mr. P. Anzalone, an Engineer from the Todd Shipyards Corp., Products Division, pointed out the various instruments and gauges used in the burner operation, and in concert with Mr. Hogan, explained the details of the oil burner.

The burner demonstrated consumes 100 gallons of No. 6 fuel oil per hour. The only moving parts on this burner are the motor, primary fan, atomizing cup. The cup is direct driven by 3450 RPM motor. It was stated that the primary purpose and method of burning fuel oil in rotary cup burner has not changed over a period of twenty years. Mr. Anzalone again pointed out all the different parts of the burner and explained the detailed operation of each. Problems which would most likely be encountered and how to cope with them, were discussed.

Mr. Anzalone then explained in detail how to start the burner, and keep it in operation. He talked about the problems created when oil is too cold, how it stagnates in the oil line and becomes hard to pump.

Mr. Anzalone also pointed out the combustion control panel and all its features. The one on display was a Cleveland model.

Mr. Jess T. Humple, Jr. of the Minneapolis-Honeywell Regulator Company then spoke about pressure controls on boilers and heating systems. He discussed the common Minneapolis-Honeywell controls used in our boilers and their purpose. A lively discussion period followed on the problems encountered by the various housing authorities.

Mr. Larry Carter, also of Minneapolis-Honeywell, spoke about motorized valves; modulating valves; climactic controls; the purpose and importance of weatherstat and zone control valves for heat distribution.

Many of those present were very interested in this part of the program since all had similar problems at one time or another. Many questions were asked, and answered.

The following recommendations for preventive maintenance were made:

- (a) The fan should be kept free from dust and dirt.
- (b) The atomizer cup should be removed and cleaned each day.
- (c) If the motor requires grease, the only grease to be used should be that recommended by the motor or bearing manufacturer. It is worse to overgrease than not to grease at all.
- (d) Electrical controls and wiring should be kept clean and dry.
- (e) Ignition assembly should be checked daily. Carbon and dirt collect around spark points and cause ignition failure.
- (f) The element should be taken out as required.
- (g) The needle valve should be dismantled as required.
- (h) The oil should not be overheated; otherwise it can crack and a deposit of carbon and sludge will form. A temperature between 160° and 180° should be maintained. Very little carbon and sludge will result.
- (i) It is always important to have replacement parts on hand.
- (j) The fan housing should be cleaned as required by disconnecting the wiring and pulling out the whole assembly. Care should be taken not to let shaft bend.
- (k) The manufacturer's instructions should be read carefully and followed.

(3) At this point the group proceeded to the project boiler room. Under the direction of Mr. Edwin Dunlap, Oil Burner Mechanic of the Housing Authority of the City of Newark, the participants stripped and assembled an oil burner. The maintenance, operation, and repair of burners was stressed. A number of the participants received practical instruction in this phase of the conference.

(4) The afternoon session began with a discussion by Mr. Louis Mament, General Manager of Aquatrol Laboratories, Inc. about the qualities of boiler water and the methods of testing and treating same. He described the corrosion problems created by the gases and solids which result from the condensate returning to the boilers and the continual passage of gases through the various pumps connected with the heating plant. The group of participants then proceeded to the boiler room where a sample of the boiler water was drained from the boiler and the proper method of testing and draining same was demonstrated.

(3) Mr. Richard K. William of Formula Floor Products, Inc., and Mr. J. A. Spencer of Breuer Electric Mfg. Co., demonstrated the punching operation of boiler tubes, which should be done monthly. They used a scraper tool attached to a vacuum cleaner. When this is put into the boiler tube, it turns and scrapes the soot deposits which have caked on the inside of the boiler tubes. They also showed how every two weeks each boiler tube should be cupped, using a straight suction method, to take out all particles of loose soot.

After the demonstration, Mr. Spencer took the lid off the drum and showed everyone what had come out of the boiler tubes as a result of the punching and cupping operations.

(5) After this demonstration, Mr. Stephen Galaida and Mr. Robert Alan of the Housing Authority of the City of Newark, demonstrated the proper method of blowing down a boiler. They spoke about the importance of keeping low water cut-offs clean during normal operations.

SECOND DAY

(1) Mr. Herbert C. Fagher, Operations Engineer, Public Housing Administration, as Discussion Moderator, introduced Battalion Chief Henry L. Schoettly of the Newark Fire Department.

Chief Schoettly spoke about fire hazards in apartment buildings and how building management could aid their local fire departments in reducing these hazards. Chief Schoettly spoke about the need for educating the public and the people who occupy public housing apartments in the matter of fire prevention. Fire prevention came under two categories:

- (a) Public in General
- (b) Employees, managers, and personnel who run projects.

He pointed out that it is very hard to reach the tenants except through education, posters, circulars and the like. However, there are certain places in buildings over which employees have control, namely, boiler rooms, workshops, tenant activity space.

Chief Schoettly named many things which should be checked to help prevent fires, such as paints, which are highly flammable; oily overalls; painters' rags; and turpentine. Some of the sources of ignition on projects are wood, elevator machinery, refrigerator mechanisms, electric wiring. He also stated that no matter what type of building, no accumulation of rubbish of any kind should be permitted in hallways, stairways, vestibules, or incinerators. A responsible employee should go around at regular intervals and make sure everything is clean.

Another potential hazard is the incinerator, which should not be stuffed with mattresses and similar bulky items. Where we have control over electric wiring, prompt repairs should be made whenever necessary. Locked fire doors, stairways and exits cause considerable trouble to a fire department trying to gain access to a fire in apartment buildings. Management, in trying to protect buildings from vandalism, lock these means of entry and hamper fire fighting.

The Fire Department can be assisted in the following ways:

- (a) When there is a fire, if you know about it, remember that a prompt alarm is very important. A great percentage of bad fires is due to late alarms.
- (b) When an alarm is turned in, the Fire Department should be told exactly the building and the floor where the fire is located. Housing projects are extensive and delay is caused in finding the exact location of the fire.
- (c) Hold an elevator for Fire Department use. When the firemen arrive they can speedily gain access to the top floors, or wherever the fire may be.

Chief Schoettly also mentioned that fire extinguishing equipment and standpipes are not of much use unless they are kept in proper working condition. Vandalism creates a problem. Hoses, nozzles, and fittings, even gate valve wheels are stolen. This equipment should be inspected regularly and kept in good operating condition.

Chief Schoettly had several fire extinguishers on display, including cutaway models. He explained each type and how it should be used. He then went on to name the different types of fires, namely:

Class A fire -- wood, rags, wool, silk, any other cellular material. This type is put out by a cooling effect. The application of cold water cools the burning substance below the point of ignition.

Class B fire -- flammable liquids and greases. This type is extinguished by water fog and spray, which excludes all oxygen and smothers the flame.

Class C fire -- electricity. An extinguisher which is a non-conductor, such as CO₂ or powder, should be used.

After the Chief's talk, everyone proceeded outdoors, where each type of fire was demonstrated and put out by the various extinguishers. Here again a considerable number of the participants received individual instruction in handling fire extinguishers and putting out fires.

(2) Mr. Stewart M. Pond of the Wayne Manufacturing Company demonstrated the Wayne Power Sweeper. Mr. Pond pointed out the features of both the hand operated sweeper and the larger power driven model with the wire curb sweeper attachment. For an effective demonstration, the area was littered with dirt, broken glass and other debris. The men again were permitted to operate the equipment.

(3) Mr. James Shanshan and Mr. Arthur Gaviola of the Heiser Lock Co. explained the repair, maintenance, installation and replacement of locks. The proper method of installing locks on several types of doors was demonstrated by Mr. Peter Doherty of the Housing Authority of the City of Newark.

(4) The afternoon session began with a tour of several apartments in the project during which the method of conducting a typical annual inspection was demonstrated.

An inspection is made of each apartment, public space, and the exterior of the entire project annually. The general practice, when inspections are made, is to have a representative of the Management Section accompanied by a representative of the Maintenance Section. Tenants are advised that in accordance with the handbook furnished at the time of initial occupancy, rules and regulations outlined must be adhered to at all times.

Dwelling unit sheets were passed among the group outlining the extent to which inspections are made of the dwelling units. Attention is given to the general appearance and housekeeping habits of the tenants. Particular attention should be paid to faucet leaks because of the cost in furnishing hot and cold water as part of the services provided. Questions were raised regarding the life expectancy of items furnished by the Authority to the tenant; also what charges were made where there were indications of willful destruction.

When services of a mechanic or the building maintenance repairman are required at any other time, it is the responsibility of the tenant to report the nature of the work requiring attention to the Management Office.

Upon completion of the inspection, items requiring immediate attention are taken care of forthwith. Where materials are required that are not on hand, requisitions are prepared and forwarded to the Purchasing Department. When the materials arrive at the project, the work requested is performed.

The inspection provides detailed information for the preparation of the budgets. Very often funds do not permit extensive recommended changes, particularly in the grounds program.

(5) The group proceeded outdoors once again, and the method of assembling an outdoor sitting area bench was demonstrated. This was followed by a demonstration of the proper techniques used in patching a portion of a black top area and how to raise a section of a sidewalk to its proper level. This demonstration was conducted by members of the maintenance division of the Newark Housing Authority.

(6) The group returned to the meeting room where representatives of the Formula Floor Products Co., Inc. proceeded with a demonstration of the proper method for cleaning a floor.

Mr. Joseph Nifoussi exhibited the latest scientific equipment, which included a scrubbing machine and a wet pick-up vacuum cleaner. He stated that maintenance of floors is made much easier with this equipment. A survey of maintenance costs in school buildings, conducted by his company, showed a reduction of fifty percent in costs.

Before starting to clean a floor, it should be analyzed. The proper type of cleaner to be used should be decided upon. Then determine the correct type of commercial product for the floor. This method of renewing the floor would eliminate all buffing and would not scuff.

On asphalt tile floors, Mr. Nifoussi mentioned that solvents would damage the tiles. The best thing to use would be a free rinse liquid or detergent. He proceeded to demonstrate. The first phase of renewal is called the stripping operation. He used two buckets with two mops, with cleaner in one pail and rinse water in the other pail. The purpose of this was that dirt was not redeposited on to the floor. The cleaning solution was applied to the floor with a mop. The solution remained on the floor a few minutes before scrubbing.

He then used a porous scrubbing pad over a sponge rubber pad on a scrubbing machine. The machine was operated from left to right so as to cover the entire surface.

After the floor was scrubbed, the wet vacuum cleaner was used to suck up all the water into a stainless steel tank. After the wet vacuum operation, the floor was again rinsed to pick up any residue that might remain. Then the floor was damp-mopped to dry out any wet spots. After about five minutes, the floor was sufficiently dry to apply the first coat of wax or dressing. The first coat should be applied very thinly. Then another coat may be applied when this has dried. Two men working together can do about 2500 square feet per hour.

(7) When this was completed, Mr. Fagher introduced Mr. Robert A. Ronayne and Mr. Damon Woodley of the John N. Thorp Co., Inc. Mr. Woodley showed a film on the use of Tuff-Kote on roofs, copings, flashings, window sills, etc. He showed how this material is used on expanding cracks to make them waterproof. He also showed the method of applying Tuff-Kote with glass fabric membrane. He stated the fact that Tuff-Kote is made of linseed, tung and other oils, chemically treated to a gelatine like consistency. Tuff-Kote is pliable and durable and will waterproof and weatherproof any surface to which it is applied.